

## Occupational Health Speaker Series

EHS 668/IOE 837

**SangHyun Lee, PhD**

### **Automatic Detection of Unsafe Actions in Construction: Markerless Motion Capture Approach**

About 80%–90% of accidents in construction are strongly associated with workers' unsafe actions and errors. The Dynamic Project Management Group at UM has been working on the development of a computer-vision–based monitoring framework to detect unsafe posture and action. Overall, the results show that the proposed approach achieved both a precision and recall of over 88% in a lab experiment. This study opens up the possibility of micro-level motion tracking and recognition with typical video cameras to identify the frequency and types of workers' unsafe actions on jobsites. The resulting information will serve as preliminary information for providing workers with direct feedback on their behavior as well as a safety performance measurement to evaluate ongoing safety management. *All interested persons are welcome to attend.*

**Friday, April 12; 1-2pm ; 2610 SPH I**



**CENTER FOR OCCUPATIONAL HEALTH AND SAFETY ENGINEERING**